

REMARKS

Claims 1-11 are pending, and claims 12-34 have previously been withdrawn. Pending claims 1-11 stand rejected. Claim 1 is currently amended and claims 4 and 5 are being cancelled. No new matter has been added.

Claims 1-5 and 10-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,754,116 ("Janik") in view of U.S. Patent No. 5,287,470 ("Simpson"), and claims 6-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Janik in view of Simpson and further in view of U.S. Patent No. 6,430,648 ("Carnevale"). Respectfully, applicants traverse and assert that in view of the above amendment, the pending application is in condition for allowance.

Applicants respectfully traverse on three bases. First, the references do not disclose a "muxing circuit . . . configurable to *couple the first access device to the first memory bank* to read and write non-interleaved data and to *discretely and simultaneously couple the second access device to the second memory bank* to read and write non-interleaved data, and . . . configurable to *couple the second access device to the first memory bank* to read and write non-interleaved data and to *discretely and simultaneously couple the first access device to the second memory bank* to read and write non-interleaved data," as explicitly recited in claim 1.

Neither Janik nor Simpson disclose a muxing circuit configured to create two discrete couplings as recited in claim 1. In Janik, the first and second access devices transmit interleaved commands through a muxer which creates only a single coupling to the memory banks (figure 2; col. 8, lines 15-17). Thus, the first access device is not coupled to the first memory bank, and the second access device is not coupled to the second memory bank, and vice versa, as set forth in claim 1.

Simpson also fails to disclose a muxer which creates two couplings between two access devices and two memory banks. Rather, Simpson discloses a swizzle circuit that creates a single coupling between one data source and two interleaved memory banks, where the interleaved

memory banks share a connection to a single data bus (figures 11 and 12). Although Simpson discloses two memory banks, Simpson does not disclose the discrete coupling of the two memory banks to first and second access devices as set forth in claim 1. Accordingly, neither Janik nor Simpson, either individually or in combination, disclose the two discrete couplings as recited in claim 1.

Second, Simpson does not disclose the simultaneous accessing of two memory banks for discrete read and write operations. While Simpson discloses the simultaneous accessing of two memory banks, the interleaving of the two memory banks does not permit those memory banks to be separately accessed simultaneously (*e.g.*, col. 9, lines 23-41). Thus, if combined with a system such as that disclosed in Janik, the interleaved multi-bank memory in Simpson would not enable a first memory access device to access the first memory bank while a second memory access device simultaneously accessed the second memory bank.

Third, Janik does not disclose the reading and writing of non-interleaved data between memory access devices and a multi-bank memory, as recited in claim 1. Although Janik discloses the transmission of commands for testing a multi-bank memory, those commands are created by interleaving a plurality of single-bank commands into a multi-bank command (col. 3, lines 29-34).

Applicants have responded to all of the rejections recited in the Office Action. Reconsideration and a Notice of Allowance for claims 1-3 and 6-11 are therefore respectfully requested.

In view of the above, claims 1-3 and 6-11 are believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If the Examiner believes an interview would be of assistance, the Examiner is welcome to contact the undersigned at the number listed below.

Application No. 10/777,739
Amendment dated
After Final Office Action of June 5, 2007

Docket No.: J0658.0009

In the event a fee is required or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 50-2215.

Dated: September 4, 2007

Respectfully submitted,

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